

875—91.13(89) Air and ventilation.

91.13(1) Notice concerning other rules. The division and the Iowa department of public safety both enforce requirements concerning air and ventilation. Objects that are covered by both sets of rules must comply with both sets of rules.

91.13(2) Documentation. Documentation of compliance with any requirement of this rule shall be maintained in the boiler room. However, it is not necessary to maintain documentation of the louvered area.

91.13(3) Codes adopted by reference. For this rule, the following codes, including references in the codes, are adopted by reference:

- a. International Mechanical Code (IMC), Chapters 2 and 7, except Section 701.1.
- b. National Fire Protection Association Standard for the Installation of Oil Burning Equipment, NFPA 31.
- c. National Fire Protection Association National Fuel Gas Code, NFPA 54.
- d. National Fire Protection Association Liquefied Petroleum Gas Code, NFPA 58.
- e. National Fire Protection Association Boiler and Combustion Systems Hazards Code, NFPA 85.

91.13(4) Installations after September 20, 2008. Fuel-burning objects installed or reinstalled after September 20, 2008, shall comply with subrule 91.13(7) or at least one of the following applicable codes:

- a. The 2006 edition of the IMC 2006. This code is applicable to all fuel-burning objects.
- b. The 2006 edition of NFPA 31.
- c. The 2006 edition of NFPA 54.
- d. The 2008 edition of NFPA 58.
- e. The 2007 edition of NFPA 85.

91.13(5) Installations from September 20, 2006, to September 20, 2008. Fuel-burning objects installed or reinstalled from September 20, 2006, to September 20, 2008, shall comply with subrule 91.13(7) or at least one of the following applicable codes:

- a. The 2006 edition of NFPA 31.
- b. The 2006 edition of NFPA 54.
- c. The 2004 edition of NFPA 58.
- d. The 2004 edition of NFPA 85.

91.13(6) Installations prior to September 20, 2006. Objects installed prior to September 20, 2006, shall comply with the 2006 edition of the IMC or subrule 91.13(7). Objects that are in compliance with the version of subrule 91.13(7) that was in effect at the time of installation or reinstallation shall be considered in compliance with this subrule. Previous versions of subrule 91.13(7), such as rules 875—91.13(89), 875—203.13(89), 347—49.12(89), and 530—49.12(89), are available for reference at http://www.iowaworkforce.org/labor/boiler_inspection_.htm.

91.13(7) Iowa combustion air requirements. A permanent source of outside air shall be provided for each room to permit satisfactory combustion of fuel and ventilation if necessary under normal operations. The minimum ventilation for coal, gas, or oil burners in rooms containing objects is based on the Btu's per hour, required air, and louvered area. The minimum net louvered area shall not be less than 1 square foot. The following table shall be used to determine the net louvered area in square feet:

INPUT (Btu's per hour)	MINIMUM AIR REQUIRED (cubic feet per minute)	MINIMUM LOUVERED AREA (net square feet)
500,000	125	1.0
1,000,000	250	1.0
2,000,000	500	1.6
3,000,000	750	2.5
4,000,000	1,000	3.3
5,000,000	1,200	4.1
6,000,000	1,500	5.0
7,000,000	1,750	5.8

8,000,000	2,000	6.6
9,000,000	2,250	7.5
10,000,000	2,500	8.3

When mechanical ventilation is used, the supply of combustion and ventilation air to the objects and the firing device shall be interlocked with the fan so the firing device will not operate with the fan off. The velocity of the air through the ventilating fan shall not exceed 500 feet per minute and the total air delivered shall be equal to or greater than shown above.